

## **Abstract**

The invention applies to the binning procedure of data, which is measured with a CCD (Charge-Coupled Device) sensor unit. There is created a solution for measurement of radiation, in which a good signal-to-noise value is achieved, and still it is possible to exploit standard CCD units. This is achieved by selecting the binning areas on the basis of position of defected pixels (461, 462) in a CCD unit (411). One idea is to determine the locations of the defected pixels and to use this information for determining pixel groups that form the super pixels. In a preferable embodiment super pixels (A1-A5, B1-B5, C1-C5, D1-D5, E1-E5) are first determined using a selected binning factor, and those super pixels that would be affected by defected pixels are then reduced into one or more smaller super pixels (B2i-E2i, B2k-E2k, C4i-E4i), which are not affected by the defects.